

ABSTRACT OF THE INVENTION

An improved thermal imaging camera system is adapted to be releasably mounted to a protective helmet typically worn by a firefighter or other emergency personnel at an incident site. The present system comprises a thermal imaging camera assembly having a single eyepiece display flexibly coupled thereto, a protective housing for the camera assembly and a specially adapted mounting bracket assembly for releasably stationing the camera assembly and its protective housing in a central position on the helmet. The camera assembly further includes and integrates a miniaturized infrared camera unit with associated battery power supply and control electronics for high resolution image production. The single eyepiece display is flexibly coupled to the camera assembly and its housing by means of an articulated arm that accommodates positioning of the display in front of either the left or right eye of the user-wearer with or without an air mask or other protective interface being worn over the face of the user-wearer. The mounting bracket assembly includes a T-shaped base bracket having a rectangular head adapted to be fixed in a level position on the front of the helmet and a C-shaped upper bracket attached to the bottom of the housing and formed to slidingly engage the head of the base bracket thereby holding the camera system in proper position on the helmet. Spring-loaded detents on opposite sides of the head of the base bracket serve to lock the bracket assembly together by engaging the sides of the upper bracket and further allow manual disengagement therefrom so that the camera system may be quickly removed from the helmet and rapidly deployed on another similarly equipped helmet.